

PATENT**REMARKS**

Claims 10-29 are pending in the present application. In the above amendments, claims 10, 17, and 20 have been amended.

Applicant respectfully responds to this Office Action.

Claim Rejections – 35 USC § 103(a)

Examiner rejected claims 10-22 under 35 U.S.C. § 103(a) as being unpatentable over van Nee (U.S. Patent No. 6, 175, 550) in view of Jung (U.S. Patent No. 6, 307, 851). Further, claims 23-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over van Nee in view of Jung, and further in view of Applicant's Admitted Prior Art.

Applicant's claims 10-22 are patentable over van Nee and Jung because van Nee and Jung, either alone or combined, neither teach nor suggest all elements of Applicants' claims. Therefore, there is no *prima facie* case of obviousness. Further, Applicant's claims 23-29 are patentable based on the same arguments given for claim 10 below because the Examiner uses the same art cited against claim 10 to address features of Applicant's claims 23-29.

Applicant restates previously filed arguments that Van Nee in combination with Jung does not teach all elements of Applicant's claims - specifically, frequency bins comprising signals code spread in the time domain

Applicant's claim 10, and all of Applicant's claims, include the feature "wherein the forward link frequency bins and the at least one reverse link frequency bins comprise signals obtained by code spreading in the time domain." In van Nee, the "control circuitry can dynamically scale the number of carriers below the upper limit on the number of carriers to decrease the signal bandwidth" (please see van Nee col. 1, line 65 to col. 2, line 2). Van Nee does not teach code spreading as in Applicant's claims in the time domain but rather OFDM, in which signal generation is performed in the frequency domain. Therefore, Applicants' claim 10, and all of Applicant's claims are distinct and patentable over van Nee.

Jung teaches MC-CDMA in which codes are applied in the frequency domain. Please see Jung col. 4, line 35 through col. 5, line where "subscriber-specific signature code sequences" are applied prior to an inverse discrete Fourier transform. Jung performs these computations in time

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only in the sense that all computations, including "frequency domain" operations, are performed as a function of time by processors, computational elements, or the human brain. The terms "time domain" and "frequency domain", however, have an ordinary use to those with ordinary skill in the art. Frequency domain operations are performed on a signal after the signal has gone through a time-to-frequency transform (e.g. a Fourier transform, discrete cosine transform, etc.) or prior to the signal going through a frequency-to-time transform (e.g. an inverse Fourier transform, an inverse discrete cosine transform, etc.). Please see *Digital Signal Processing: Principles, Algorithms and Applications (3rd Edition)* by John G. Proakis and Dimitris Manolakis or any signal processing text. Hence, Jung may perform the computations as a function of time (as all computations are performed) but the computations are performed in "frequency domain" and not in the "time domain" as in Applicants' claims.

Therefore, van Nee in combination with Jung does not teach all elements of Applicant's claims - specifically, frequency bins comprising signals code spread in the time domain. Applicant's specification as originally filed discusses the advantages of frequency allocation of frequency bins comprising signals code spread in the time domain including flexible spectrum management and integration with existing hardware as well as the selection of various frequency bins. Please see pages, for example, 12-17.

In order to expedite prosecution, Applicant amends all independent claims, claims 10, 17, and 20, to include the feature, "and further wherein each of the forward link bins and the at least one reverse link frequency bin are allocated for single-carrier CDMA communication within the respective bin." This amendment is fully supported by Applicant's specification as originally filed. Please see, for example, pages 12-17. The use of bins allocated for single-carrier CDMA communication within the respective bin further distinguishes from the cited art which does not have the advantages of frequency allocation of frequency bins comprising signals code spread in the time domain including flexible spectrum management and integration with existing hardware as well as the flexibility in selection of various frequency bins.

PATENT**REQUEST FOR ALLOWANCE**

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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By: 

Rupit Patel, Reg. No. 53,441
(858) 651-7435

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 658-5787
Facsimile: (858) 658-2502